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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)

Revision of the Commission's Rules)
To Ensure Compatibility with)
Enhanced 911 Emergency Calling Systems)

CC Docket No. 94-102
RM-8143

To: The Commission

ADDITIONAL COMMENTS OF NEXTEL COMMUNICATIONS, INC.

NEXTEL COMMUNICATIONS, INC.

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Dated: July 28, 1997

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ADDITIONAL COMMENTS OF NEXTEL COMMUNICATIONS, INC.

I. INTRODUCTION

Pursuant to the July 16, 1997 Public Notice of the Federal Communications Commission ("Commission"), Nextel Communications, Inc. ("Nextel") respectfully submits these Additional Comments on the Commission's rules on wireless Enhanced 911 ("E911") implementation.^{1/}

On July 26, 1996, the Commission adopted a Report and Order and Further Notice of Proposed Rulemaking ("Order") on wireless E911 rules.^{2/} Therein the Commission established a two-phase implementation of E911 on wireless systems. A number of parties, including Nextel, sought reconsideration of portions of the Order, including the requirement that E911 calls be transmitted from mobile units with no code-identification. Nextel stated that requiring the transmission of such E911 calls would be extraordinarily costly, would require significant system

^{1/} Public Notice, "Commission Seeks Additional Comment in Wireless Enhanced 911 Rulemaking Proceeding Regarding Ex Parte Presentations on Certain Technical Issues," DA 97-1502, released July 16, 1997.

^{2/} First Report and Order and Further Notice Of Proposed Rulemaking, 11 FCC Rcd 18676 (1996).

modifications, and would be bad public policy.^{3/} Subsequent to these petitions for reconsideration, the Policy Division ("Division") of the Wireless Telecommunications Bureau ("Bureau") submitted a questionnaire to various industry participants seeking further information on the code identification issue as well as other technical aspects of implementing the Commission's E911 rules.

Three *ex parte* presentations were filed in response to the Division's questionnaire: the Ad Hoc Alliance for Public Access to 911; GTE Service Corporation; and Wireless E911 Coalition ("Coalition"). Of the three submissions, only the Coalition's addressed the implications of the Commission's rules for Nextel's iDEN service. Nextel, therefore, files these Additional Comments to support the Coalition's *ex parte* presentation, to reassert its opposition to the Commission's requirement regarding the transmission of calls from non-code identified handsets, and to seek implementation of a nationwide, federally-mandated and controlled E911 funding mechanism.

II. DISCUSSION

Since the Commission adopted its E911 rules last year, Nextel has moved forward diligently in setting the groundwork for implementing basic 911 by October 1997 and E911's Phase I by April 1998. Nextel has worked with vendors, consultants, government officials, Public Safety Answering Points ("PSAPs"), industry

^{3/} See, e.g., Petition for Reconsideration of Nextel, filed September 3, 1996, in the above-referenced docket.

technical and policy organizations and others to assess, plan for and implement this service. The more Nextel continues to delve into implementation issues, however, the more complex they become - particularly for a nationwide provider, like Nextel, that under the current rules must negotiate with thousands of PSAPs, many of which have different visions of wireless E911 and in particular, varying approaches to funding cost recovery.

Based on its experiences to date, including discussions with numerous PSAPs, industry fora, vendors and other carriers, Nextel proposes the following changes to the Order: (1) elimination of the requirement to transmit 911 calls from non-code identified mobile units; (2) establishment of a single federally-mandated E911 funding and cost recovery mechanism; and (3) a two-year delay in the Phase I implementation date. Each of these changes will assure the provision of effective wireless E911 services on a consistent and reliable basis from state to state.

A. The Commission Should Not Require Mandatory Transmission of 911/E911 Calls From Non-Code Identified Handsets

The Commission's requirement that carriers transmit calls from mobile handsets without code identification is unnecessary, costly and bad public policy.^{4/} Nextel submitted an ex parte presentation to the Policy Division wherein it explained that on Nextel's iDEN systems, a mobile handset can transmit any 911 call under any circumstances if the handset has been programmed with an International Mobile Subscriber Identification ("IMSI") number at

^{4/} See Petition for Reconsideration of Nextel, filed September 9, 1996 at pp. 3-5.

any time. Once an IMSI is assigned, the equipment is readied for operation on the Nextel system, and the IMSI acts as the code for validating and authenticating users on the system.^{5/}

The iDEN system, however, includes a special call set-up process for emergency calls which skips the validation and authentication processes. Thus, if a phone has an IMSI, the 911 call will be transmitted even if the customer's service has been terminated or the unit stolen. In fact, as Nextel explained in its *ex parte* attached hereto, the only imaginable situation in which an iDEN unit would not complete a 911 call would be if the unit were stolen prior to ever having been programmed with an IMSI -- i.e., placed in customer service. This satisfies the Commission's concern that wireless phones have the capability of accessing 911 in all circumstances where the public would reasonably expect to have that capability. The rules should be amended accordingly.

B. Federal Funding Scheme for E911

In the Order, the Commission refused to exercise its jurisdiction over the cost component of E911 implementation, stating that the record did not demonstrate a need for federal cost recovery.^{6/} Nextel disagrees -- particularly as the complexities and issues related to E911 implementation become clearer. As a nationwide provider, Nextel will be offering E911 services in all 50 states, thereby involving thousands of PSAPs, counties, cities,

^{5/} See Nextel's June 17, 1997 *ex parte* presentation to Mr. John Cimko, attached hereto.

^{6/} Order at para. 89.

and states, each with its own approach to funding E911. Nextel must approach or be approached by each and every one of these jurisdictions, and implement their particular version of E911 funding, which in some cases involves layers of assessments. No wireless telecommunications billing system is currently equipped to handle such an extraordinary number of fees, taxes, and surcharges. The administrative overhead of the current approach is threatening to severely hinder the availability of 911 service and significantly increase costs.

For example, some states include both a statewide funding mechanism as well as local and/or county funds.^{7/} One may be a tax based on a percentage of traffic while another is a flat fee imposed on each telephone number (within a particular area code) assigned to the carrier's customers (or perhaps, based on the billing address of each of the carrier's customers). Some fees are \$.25/customer, some are \$1.25/customer, and still others vary across the board from \$.10/customer to \$2.00/customer. Some fees are established at one level for "business" lines and another level for "residential" lines.^{8/} Some jurisdictions ask that the monies be remitted to the State's Department of Revenue, some require remittance to the local PSAP organization and others require

^{7/} For example, in Maryland, state law provides for a state surcharge of \$.10/access line and an additional local surcharge not to exceed \$.50/access line. The State of New Mexico also authorizes two fees -- one at the local level and one at the state level.

^{8/} The State of Louisiana, for example, imposes a charge not to exceed \$1.00/access line for residential customers and not to exceed \$2.00/access line for business customers.

remittance to the city or county government agencies, with each of the assessments coming due at different times within the month. All of these variables multiplied by a thousand scenarios overwhelms the billing system and administrative resources of wireless carriers.^{9/}

Given the complications, complexities and costs involved in complying just with collecting the funds for implementing E911 (not to mention the programs that have yet to be designed for remitting funds back to the wireless carriers to cover their costs), Nextel asserts that the record overwhelmingly supports a federal cost recovery scheme. Carriers, diligently working to implement the technical aspects of E911, are shifting valuable resources and efforts into an administrative quagmire, which is unnecessary and easily remedied through Commission intervention.

In light of the multi-state scope of nearly all wireless providers (as well as the national and regional scope of numerous carriers), the Commission should establish a single formula for funding the E911 system for wireless telecommunications services. A single formula and a single fee would significantly reduce the administrative burden on wireless providers, thereby easing and speeding effective implementation of wireless E911. The 8th Circuit Court of Appeals recently recognized the Commission's broad

^{9/} The Commission stated in the Order that this sort of "flexibility" among the states and localities would benefit E911 implementation. On the contrary, this "flexibility" is nothing more than an unnecessary and costly maze that will slow the implementation of E911 and increase the administrative burdens and costs for wireless carriers.

authority over Commercial Mobile Radio Service ("CMRS") providers and services.^{10/} The Commission, therefore, should exercise this authority with regard to CMRS E911 implementation by establishing a single nationwide funding mechanism for wireless E911.

C. The Commission Should Delay Implementation of Phase I For Two Years

In light of the current uncertainties and complexities that continue to arise as wireless carriers work to implement E911, the Commission should delay Phase I implementation for two years. However, if the Commission establishes a single federally-administered fund for wireless E911 and makes the necessary technical changes, a full two years may not be necessary.^{11/} Without a single funding mechanism, carriers will still be working to establish cost recovery mechanisms with the thousands of jurisdictions currently in control of emergency services funding. This jurisdiction-by-jurisdiction approach takes significant time and resources, and cannot be adequately or timely completed under the Commission's current rules.

Combined with the technical aspects of E911 that have yet to be ironed out, these administrative hurdles make it difficult -- if not impossible -- for the industry to implement a workable, efficient E911 system by April of 1998.

^{10/} Iowa Util. Bd. v. FCC, No. 96-3321, (8th Cir. filed July 18, 1997) at fn. 21.

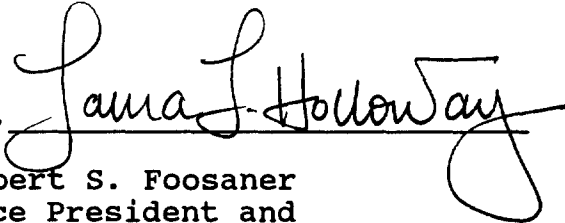
^{11/} See *Ex Parte* presentation of the Coalition.

III. CONCLUSION

For these reasons, Nextel asserts that the Commission should exercise control over the funding of wireless E911, eliminate the existing technical barriers in the Order, and grant the industry additional time to implement the Phase I mandate.

Respectfully submitted,

NEXTEL COMMUNICATIONS, INC.

By, 

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June 17, 1997

Mr. David Furth, Chief
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RE: **CC Docket No. 94-102: Transmitting 911
Calls From Mobiles With No Code
Identification**

Dear Mr. Furth and Mr. Grosh:

I. INTRODUCTION

Pursuant to your request at our meeting on June 3, 1997, Nextel Communications, Inc. ("Nextel") is submitting this written discussion of Nextel's capabilities with respect to the Federal Communications Commission's ("Commission") requirement to transmit "911" calls from mobile units with no code identification. The discussion herein is limited to the capabilities of Nextel's iDEN systems, *i.e.*, its digital wide-area Specialized Mobile Radio ("SMR") network.

II. EXECUTIVE SUMMARY

Nextel can transmit 911 calls from all of the following iDEN units:

- A validly-subscribed Nextel unit.
- A formerly-subscribed Nextel unit, *i.e.*, service has been terminated for any reason.

- A temporarily suspended Nextel unit, *i.e.*, one whose subscriber has failed to pay its bills and whose service may be temporarily suspended.
- A validly-subscribed Southern Company ("SoCo"), Clearnet or other iDEN carrier's unit.
- A formerly-subscribed SoCo, Clearnet or other iDEN carrier's unit.
- A temporarily suspended SoCo, Clearnet or other iDEN carrier's unit.
- A unit stolen from any current or former iDEN subscriber -- whether a subscriber of Nextel, SoCo, Clearnet or another iDEN carrier.
- A cloned iDEN unit.

Nextel cannot transmit 911 calls from the following iDEN units:

- An iDEN unit "just out of the box" that has never been assigned an International Mobile Subscriber Identification ("IMSI"), defined below. This category, to the best of our knowledge and understanding, includes only an iDEN unit stolen from a warehouse, sales office, dealer or the manufacturer's plant or warehouse, prior to being programmed for a customer.

Nextel respectfully asserts herein that its ability to transmit a 911 call on a "non-code identified" iDEN unit is sufficiently encompassing to meet the Commission's wireless emergency access goals.^{1/} The single instance in which an iDEN unit could be in a user's hands without an IMSI, *i.e.*, without code identification, is limited to a unit stolen before it was ever placed in service.^{2/} If an iDEN unit is

^{1/} As Nextel explained in its June 4, 1997 *ex parte* presentation to Mr. John Cimko, Nextel's analog SMR systems are single site, high power systems that provide primarily localized non-interconnected fleet dispatch services. Most of the mobile units on these systems are not interconnected to the Public Switched Telephone Network ("PSTN"). Customers on these systems do not expect 911 capabilities, the systems serve primarily businesses with fleets of mobile workers who can communicate only with the dispatcher or other members of the fleet; consequently, they are not the type of wireless system that the FCC intended to encompass within its 911/Enhanced 911 obligations.

^{2/} Under Nextel's distribution system, iDEN units are not sold separately from the iDEN service.

stolen after being programmed for service, it will transmit a 911 call even if the theft has been reported and the account closed. The same is true of a unit "suspended" or "terminated" because the account has not been paid or service discontinued. The reason for this is that Nextel's iDEN system bypasses the authentication and verification process in setting up 911 calls, as discussed below.

III. DISCUSSION

In the Report and Order and Further Notice Of Proposed Rule Making ("Order") in the above-referenced docket, the Commission required cellular, Personal Communications Services ("PCS"), and "covered SMRs" to transmit 911 calls "from wireless mobile handsets which do not transmit a code identification to any appropriate [Public Safety Answering Point] PSAP which has formally requested transmission of such calls."^{3/} The PSAP is required to give the carrier six months' notice of its request for non-code-identified calls.^{4/}

Code Identification on iDEN

Each iDEN unit manufactured by Motorola comes equipped with a "hardware" identifier, the IMEI, which is placed in the mobile unit at the time of manufacture. Each IMEI is unique to the individual unit and identifies only the equipment itself. At the time the mobile units are transported to Nextel or its authorized dealers, these units are capable of being programmed to operate on any iDEN system in North America, e.g., The Southern Company ("SoCo") in the U.S. or Clearnet in Canada, but without further programming, will not actually function on any of those systems.

Operation of the iDEN mobile unit is dependent upon the assignment of an "International Mobile Subscriber Identification," or "IMSI" to the unit. An IMSI identifies the country in which the particular carrier's system is located, the carrier to which unit has been subscribed, and the individual subscriber.^{5/} Without an IMSI, the unit is nothing more than a "paperweight" with no functionality. An IMSI is

^{3/} First Report and Order and Further Notice Of Proposed Rule Making, 11 FCC Rcd 18676 (1996) at para. 29.

^{4/} *Id.*

^{5/} Every Nextel subscriber's IMSI is a 15-digit code that includes, among other things, a Mobile Country Code ("MCC"), which indicates that the subscriber belongs to a carrier located in the U.S., and a Mobile Network Code ("MCN"), which indicates that the subscriber operates on the Nextel system. The U.S. Department of State assigns MCCs and MCNs to domestic carriers.

assigned, and the equipment readied for operation on the Nextel system only when a customer signs up for Nextel's services and purchases the iDEN unit.

Call Set-Up On iDEN

When a Nextel subscriber makes a phone call on its iDEN unit, the Nextel system goes through a two-step process:

- (1) validation -- the system reads the IMSI and determines whether it is a "known" or "valid" IMSI, *e.g.*, it belongs to Nextel rather than SoCo.
- (2) authentication -- the system then checks the IMSI to ensure that it has not been stolen or cloned.

This process ensures that only valid Nextel subscribers can use the Nextel iDEN system, and helps to prevent, for example, inadvertent use of the system by a SoCo subscriber whose unit may be programmed to the same channels on which Nextel's system operates in areas overlapping with SoCo's system. Additionally, this set-up process helps prevent the use of a cloned or stolen iDEN unit.

Emergency Call Set-Up on iDEN

Nextel's iDEN system does not require validation or authentication of an emergency, *i.e.*, "911" call. If "911" is dialed on an iDEN unit, the call is immediately transmitted to the PSAP without going through either the validation or authentication processes. Thus, any iDEN unit with an IMSI -- whether valid, authentic, stolen, cloned or outdated -- will transmit a 911 call to the PSAP. The practical result is, for example, the SoCo user, whose unit is inadvertently operating on Nextel's system due to overlapping channels, can dial 911 and reach a PSAP even though the iDEN unit is operating on the wrong system. In other words, when an emergency call is made, Nextel's system does not care if the IMSI is assigned to a SoCo user or a Nextel user; if the Nextel subscriber has or has not paid its bill or terminated its service; or if the iDEN unit has been stolen. The presence of any IMSI allows transmission of the 911 call.

III. CONCLUSION

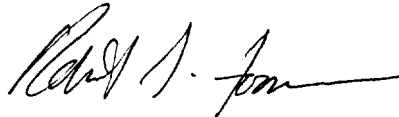
Nextel's iDEN units transmit 911 calls for the universe of potential callers that the Commission intended to be encompassed by its rules. The limited circumstance in which a customer would have an iDEN unit without an IMSI does not warrant the fundamental technical and operational changes necessary to transmit 911 calls in this rare and limited circumstance. Accordingly, to the extent necessary, Nextel requests

June 17, 1997

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that the Commission clarify its 911 requirement to indicate that the above-described capabilities meet the 911 call transmission requirements set forth in the Order.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert S. Foosaner", with a long horizontal flourish extending to the right.

Robert S. Foosaner
Vice President and Chief Regulatory Officer

cc: Rhonda Lien
Cheryl Kornegay
Jay Jackson
Nancy Booker
Won Kim

CERTIFICATE OF SERVICE

I, Rochelle L. Pearson, hereby certify that on this 28th day of July, 1997, I caused a copy of Additional Comments of Nextel Communications, Inc. to be served hand delivery:

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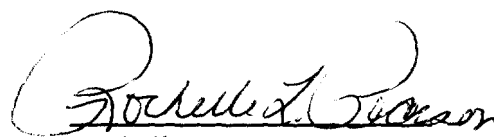
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